

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Manabu SUTOH et al.

Serial No.:

10/584,475

Filed:

June 23, 2006

For: Dicing/Die Bonding Film And Method
Of Manufacturing The Same

Docket No.:

71,051-036

Group Art Unit:

1771

Examiner:

unknown

I hereby certify that the enclosed Information Disclosure Statement is being transmitted via EFS transmission to the Commissioner of Patents, PO BOX 1450, Alexandria, VA 22313-1450, on the date shown below.

May 29, 2007
Date

/Sandra Barry/
Sandra Barry

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Applicant(s) submit(s) herewith patents, publications, or other information, of which they are aware that they believe may be material to the patentability and/or the examination of this application, and in respect of which, there may be a duty to disclose in accordance with 37 C.F.R. §1.56.

The filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made (37 C.F.R. 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability and/or examination, or that no other material information exists. The filing of this Information Disclosure Statement shall not be construed as an admission against interest in any manner.

- ☒ Submitted herewith is Form PTO/SB/08a listing patents, publications, or other information for consideration by the Office.

COPIES PROVIDED:

- ☒ Legible copies of all items listed on Form PTO/SB/08a accompany this Information Disclosure Statement, except copies of U.S. patents, U.S. patent application publications, copies of U.S. applications that were filed on or after June 30, 2003, and copies of U.S. applications that were filed before June 30, 2003 that are available in the Image File Wrapper System.
- ☐ Under 35 U.S.C. §120, this application relies on the earlier filing date of prior application Serial No. [____], filed on [_____]. The following references were submitted to and/or cited by the Office on this prior application and are therefore not required to be provided in this application:

- ☐ In accordance with 37 C.F.R. §1.98(c), a copy of only [] is being submitted with this Information Disclosure Statement, and is cumulative of the following patents or publications listed on Form PTO/SB/08a:

FOREIGN LANGUAGE DOCUMENTS

- ☐ There are no foreign language documents listed on Form PTO/SB/08a.
- ☒ English language abstract for the following non-English references are enclosed:

<u>Foreign Patent Document</u>	<u>Publication Date</u>	<u>Name of Patentee or Applicant of Cited Document</u>
JP 03-152942	06/28/1991	Ishita et al.
JP 03-268345	11/29/1991	Akata et al.
JP2002226796	08/14/2002	Aichi et al.

- ☐ Submitted herewith is an English translation of the following foreign language patents, publications or information or of portions of those patents, publications or information considered to be material:
- ☒ No English language translations of the foreign language patents, publications or information or parts thereof are readily available, except for those listed above.
- ☐ The following foreign language documents are believed to be the equivalent or substantial equivalent of the English language documents identified below, which are also submitted herewith:

Cited Art

English Equivalent

- ☐ Submitted herewith is an English language version of a PCT search report listing information not in the English language and indicating the degree of relevancy found by the International Bureau of WIPO, in satisfaction of the requirement (under 37 C.F.R. §1.98(a)(3)) for a concise explanation of the relevance of non-English information.
- ☒ A concise explanation of the relevance of the following listed non-English language information is included as presently understood by the individual designated in 37 C.F.R. §1.56(c) most knowledgeable about the content of the information as set forth below:

Foreign Patent Document

JP 03-152942

Explanation of Relevance

This document was cited by the International Searching Authority in the International Search Report as a category "A" document and its relevance as presently understood is obtained from the English language abstract which indicates that this document discloses an adhesive layer, a thermoplastic adhesive film and an adhesion layer for wafer fixing use which are laminated in order on a support substrate. The layer and the film are laminated in a state that they are peelable from each other. A semiconductor wafer is fixed on the layer of this dicing and die bonding film, the layer and the film are divided along with the wafer at the time of dicing, the film is peeled from the layer in the interface between the film and the layer and a semiconductor element is bonded and fixed on a material to be mounted through the layer and the film by heating and is used. As the film, a polyimide or polyester film is used.

- JP 03-268345 This document was cited by the International Searching Authority in the International Search Report as a category "A" document and its relevance as presently understood is obtained from the English language abstract which indicates that this document discloses a thermally formable tacky layer which is prepared on a support base, and an adhesive layer for die bonding is prepared thereon. When a wafer is diced into small pieces of semiconductor elements, the adhesive layer for die bonding directly adheres to the wafer to serve as a wafer support, and when a semiconductor chip is mounted, it functions as a chip carrier and an adhesive layer for the semiconductor chip. The thermally foamable tacky layer is positioned between the support base and the adhesive layer for die bonding, and when the wafer is diced, it couples them firmly, secures the wafer, prevents chips from scattering, and subsequently foams thermally to cause lowering of adhesion between the adhesive layers. This makes the adhesion between the support base and the adhesive layer adjustable.
- JP2002226796 This document was cited by the International Searching Authority in the International Search Report as a category "A" document and its relevance as presently understood is obtained from the English language abstract which indicates that this document discloses a pressure-sensitive adhesive sheet for sticking a wafer and a semiconductor device. The adhesive sheet comprises a radiation-curable pressure-sensitive adhesive layer containing both an adhesive agent and a radiation-polymerizable oligomer and a die-sticking adhesive layer which are formed in this order on a base material. The semiconductor device has a structure where the semiconductor element and a support member are stuck to each other through the die-sticking adhesive layer of the adhesive sheet.

☐ A concise explanation of the relevance of the following listed non-English language information is set forth in the above-identified specification:

CERTIFICATION:

- ☒ The Information Disclosure Statement transmitted herewith is being filed **within** three (3) months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office Action on the merits, whichever event occurs last. 37 C.F.R. §1.97(b). Accordingly, it is believed that no certification or fee is due.
- ☐ The Information Disclosure Statement transmitted herewith is being filed **after** three (3) months of the filing date of the application or the date of entry into the national stage of an international application or after the mailing date of the first Office Action on the merits, whichever event occurred last but **before** the mailing date of either a final action under 37 C.F.R. §1.113 or a Notice of Allowance under 37 C.F.R. §1.311, whichever occurs first. Accordingly, I hereby certify that:
- ☐ each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to the filing of the Information Disclosure Statement; 37 C.F.R. §1.97(e)(1); **OR**
- ☐ no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to my knowledge as the person signing this certification after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to any individual designated in §1.56(c) more than three (3) months prior to the filing of this statement; 37 C.F.R. §1.97(e)(2); **OR**

☐ Applicant elects the option to pay the fee set forth in 37 C.F.R. §1.17(p) for submission of an Information Disclosure Statement under 37 C.F.R. §1.97(c). If a check is not enclosed, please charge the **\$180.00** IDS submission fee to Howard & Howard Attorneys PC **Deposit Account No. 08-2789**. A duplicate of this paper is enclosed.

☐ The Information Disclosure Statement transmitted herewith is being filed **After a Final Action** under 37 C.F.R. §1.113, or **After a Notice of Allowance** under 37 C.F.R. §1.311, whichever occurs first, but is being filed on or **Before Payment of the Issue Fee**. Accordingly, I hereby certify that:

☐ each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to the filing of the statement; 37 C.F.R. §1.97(e)(1); **OR**

☐ no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to my knowledge as the person signing this certification after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to any individual designated in §1.56(c) more than three (3) months prior to the filing of this statement; 37 C.F.R. §1.97(e)(2); **AND**

☐ Applicant hereby petitions for consideration of this Information Disclosure Statement; 37 C.F.R. §1.97(d)(2)(ii). If a check is not enclosed, please charge the petition fee of **\$180.00** Howard & Howard Attorneys PC **Deposit Account No. 08-2789**. A duplicate of this paper is enclosed.

The Commissioner is authorized to charge Howard & Howard Attorneys PC Deposit Account No. 08-2789 for any additional fees due hereunder.

Respectfully submitted

Reg. No.: **46,295**

/David M. LaPrairie/
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May 29, 2007
Date

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